A. Cover Sheet (Attach to front of proposal.)

1. Specify: ☐ agricultural project or ☒ urban project ☒ individual application or ☐ joint application

2. Proposal title -- concise but descriptive: System Leak Repairs for the Southern California Water Company, Region 1; Baypoint, Clearlake, Cordova, Ojai, Simi Valley, and Tanglewood Customer Service Areas

3. Principal applicant -- organization or affiliation: Southern California Water Company

4. Contact -- name, title: Robert Hanford, Engineering and Planning Manager

5. Mailing address: 3035 Prospect Park Drive, Suite 60, Rancho Cordova, California 95670

6. Telephone: (916) 853-3605

7. Fax: (916) 852-0171

8. E-mail: rhanford@scwater.com

9. Funds requested -- dollar amount: $891,000

10. Applicant cost share funds pledged -- dollar amount: $891,000

11. Duration (month/year to month/year): July 1, 2001 to June 30, 2004

12. State Assembly and Senate districts and Congressional district(s) where the project is to be conducted: State Assembly Districts 1, 10, 11, 33, and 38. State Senate Districts 2, 5, 7, 18, and 19. Congressional Districts 1, 7, 11, 22, and 23.

13. Location and geographic boundaries of the project: (Please see maps in Appendix I)

14. Name and signature of official representing applicant. By signing below, the applicant declares the following:
__ the truthfulness of all representations in the proposal;
__ the individual signing the form is authorized to submit the application on behalf of the applicant;
__ the applicant will comply with contract terms and conditions identified in Section 11 of this PSP.

(printed name of applicant) (date)

(signature of applicant)

Appendix III. Sumary of Customer Service Area Spreadsheets

Sum of Capital Costs (Undiscounted):	1,782,000	CALFED Share	SCWC Share
Sum of Capital Costs (Discounted):	1,594,130	$891,000	$891,000
Total water savings benefit:	$128,270		
Total water savings (AF):	297		

SECTION B

SCOPE OF WORK

This section consists of the scope of work. The relevance and importance of the project are described and its merit, feasibility, monitoring, and assessment are addressed.

B.1 Relevance and Importance

This section presents a summary of the project, a statement of water issues, and the scope and objectives of the project.

B.1.1 Abstract. The project consists of repairing system water leaks in the six water systems owned by Southern California Water Company (SCWC) Region 1 that utilize surface water from either upstream or downstream of the Bay-Delta. The project will focus on replacing leaking water service lines. This project addresses Best Management Practice number 3, *System Water Audits, Leak Detection and Repair*, as defined in the California Urban Water Conservation Council's (CUWCC) Memorandum of Understanding Regarding Urban Water Conservation in California (MOU). The objective of this project is to repair system water leaks within a duration of three years. Table B-1 presents the water systems that would be the focus of the project, plus the estimated number of services to repair and resulting water savings.

Table B-1. System Service Lines to be Repaired

Water system	Connections	Services to be repaired	Water savings (ac-ft/yr)[a]	Marginal cost of water (dollars/ac-ft)
Bay Point	5,166	212	10.6	800
Clearlake	2,481	18	0.9	300
Cordova	12,000	600	30.0	500
Ojai	2,885	140	7.0	400
Simi Valley	12,872	195	9.8	500
Tanglewood	449	23	1.2	500
Totals	35,853	1,188	59.5	

[a]Based on 0.05 ac-ft/yr per service line repair.

B.1.2 Water Issues, Need, and Consistency with other Plans. The efficient use of California's limited water supplies is a critical local, regional, and state-wide water issue. The purpose of this project is to significantly increase water use efficiency replacing leaking service water lines.

This project will provide benefit to the Bay-Delta by ensuring that diverted water is used efficiently. The six identified water systems use surface water. The Cordova system utilizes surface water from the American River. The Tanglewood system utilizes surface water from the Coastal Branch of the State Water Project. The Bay Point system uses surface water diverted from the Bay-Delta by Contra Costa Water District. The Clearlake system uses surface water diverted from Clear Lake. The Ojai system uses surface water purchased from Casitas Municipal Water District. The Simi Valley system uses surface water purchased from Calleguas Municipal Water District.

This project consists of replacement of leaking service lines. The project is needed to achieve greater water use efficiency and maximize the usage of diverted surface water. It is anticipated that the 1,188 service lines replaced under this project will result in water savings of approximately 59 acre-feet per year.

This project involves the implementation of urban water conservation best management practice (BMP) numbers 3, *System Water Audits, Leak Detection and Repair*, as defined by the California Urban Water Conservation Council (CUWCC). The unpredictable water supply and ever increasing demand on California's complex water resources have resulted in a coordinated effort by the California Department of Water Resources (DWR), water utilities, environmental organizations, and other interested groups to develop a list of urban BMPs for conserving water. This consensus-building effort resulted in the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU), which formalizes an agreement to implement these BMPs and makes a cooperative effort to reduce the consumption of California's water resources.

This project is compatible with the urban water management plans filed for each of the water systems.

B.1.3. Project Nature, Scope, and Objectives. This project consists of replacing leaking water service lines. Approximately 1,188 service lines will be replaced.

The scope of the project consists of several tasks.

Task 1. Develop action plan. This includes identifying the service lines requiring replacement.
Task 2. Prepare contract documents.
Task 3. Select contractor.
Task 4. Replace service lines.
Task 5. Prepare project report.

The objectives of the project are to realize greater water use efficiency replacing leaking service lines.

B.2 Technical/Scientific Merit, Feasibility, Monitoring, and Assessment

This section describes the merit, feasibility, and the monitoring and assessment of the project.

B.2.1 Methods, Procedures, and Facilities. SCWC will use standard engineering and construction methods to implement this project. Standard contracting procedures will be used to replace the service lines.

B.2.2 Schedule. A bar chart schedule is presented in Figure B-1. Table B-2 presents a quarterly expenditure projection.

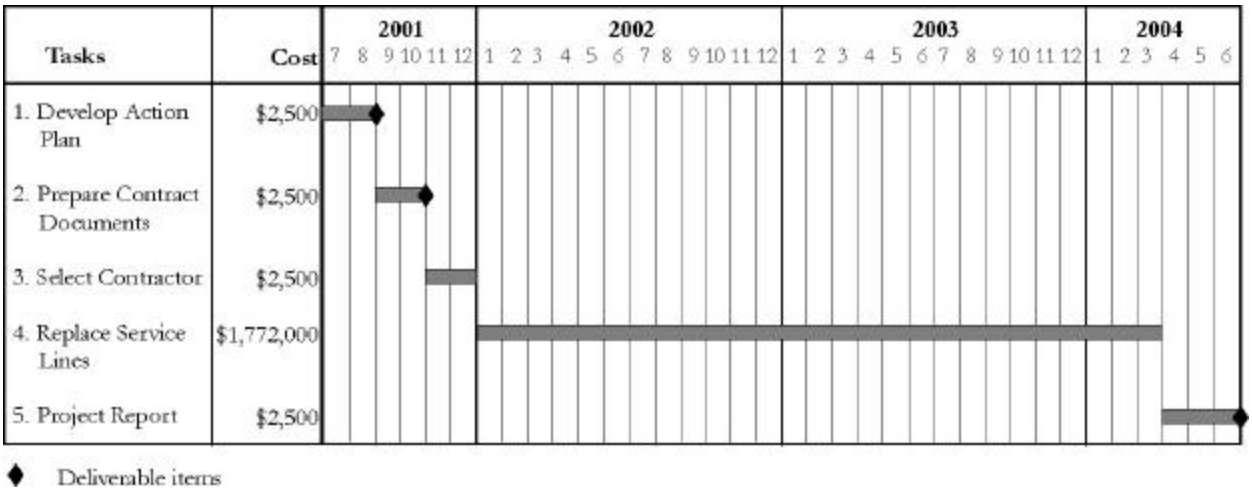

Figure B-1. Project Timeline

Table B-2. Quarterly Expenditure Projection

Quarter	Months	Expenditure
Year 1		
1	July-September	$3,750
2	October-December	$3,750
3	January-March	$196,888
4	April-June	$196,888
Year 2		
1	July-September	$196,888
2	October-December	$196,888
3	January-March	$196,888
4	April-June	$196,888
Year 3		
1	July-September	$196,888
2	October-December	$196,888
3	January-March	$196,888
4	April-June	$2,500
Total		$1,782,000

B.2.3 Monitoring and Assessment. SCWC will monitor and assess the before and after water use. A report will be issued within one years of the completion of the project documenting the results. The information will be made available to the public through various outreach methods.

SECTION C

OUTREACH, COMMUNITY INVOLVEMENT, AND INFORMATION TRANSFER

This section describes outreach efforts that will be made by Southern California Water Company (SCWC) during the project; training, employment, and capacity building potential the project provides; and the plan for disseminating information regarding the phases of the project.

C.1 Outreach Efforts

SCWC provides water to approximately 35,850 connections in the communities of Bay Point, Clearlake, Cordova, Ojai, Simi Valley, and Tanglewood. There are 1,188 leaking service lines to be repaired in these customer service areas.

Because the project's scope of work is specifically to repair leaking service lines in the SCWC customer service areas, outreach efforts will focus primarily on the water customers served in the area. There will not be an opportunity to involve participation from people in disadvantaged communities, however, repairs will occur in some disadvantaged communities and the benefits will be realized by those customers. There will not be a need to develop partnerships to complete the project. There are no tribal entities in the area that will be impacted by the project.

C.2 Training, Employment, and Capacity Building Potential

Once the project is underway, a contractor will be selected through competitive bidding to perform the actual system leak repairs. It is anticipated that the repairs will require multiple crews of four to five workers. Once the system lines are repaired, there will not be a need for any new employment.

C.3 Information Dissemination Plan

SCWC staff provides its customers with proactive, responsive, and friendly service. SCWC staff realizes the critical role that public perception and acceptance will play in the success of such a program. With this in mind, the SCWC information dissemination plan may include, but not be limited to:

Educational materials – Fact sheets about the system leak repair program – written in easy to understand language – will be critical to successful public education. District activities, programs and accomplishments will be highlighted in regular newsletters. Customers will receive direct information through utility bill inserts, door hangers, and information kits.

Media relations – Public service announcements and editorial commentary in print and on electronic media are very effective and reach a large, diverse audience. The system leak repair program will be highlighted as well as SCWC's accomplishments and services.

Web site – The SCWC web site will keep the community updated on the project and visitors will have the ability to send e-mail to the project manager as a two-way line of communication.

Public workshops – It is important to offer a forum for the public to hear information first hand and ask questions about the system leak repair program. One approach is an educational workshop that encourages customers to visit various interest tables that focus on specific information such as leak repair, water quality, water conservation, etc.

Speakers bureau – A group of trained speakers comprised of SCWC staff and perhaps board members, will make presentations to local neighborhood groups about the system leak repair program and other pertinent issues.

Customer Information hotline – A direct line of communication must always be maintained to insure successful public information, therefore, a telephone hotline will be offered to provide immediate response to customer concerns. A SCWC staff member knowledgeable about the system leak repair project will be available to answer customer calls and will forward concerns to the project manager as needed.

Program evaluation – It is important to evaluate the public relations efforts throughout the project. This will ensure the information dissemination program plan is on track and meeting the plan goals and objectives. An informal focus group session will be held at the end of the first six months to determine which tactics have been effective and which areas may need to be revised to be more effective. At the end of the project, customers will be contacted to determine their level of satisfaction. The concerns of any unsatisfied customers will be addressed and resolved as quickly as possible.

C.4 Letters of Notification

There are no local land use entities, water districts, or other potentially impacted or cooperating agencies to be notified of this proposal.

SECTION D

QUALIFICATIONS OF THE APPLICANTS, COOPERATORS, AND ESTABLISHMENT OF PARTNERSHIPS

The qualifications of the project manager, cooperators, and partners to be involved in the system leak repair program for Southern California Water Company's (SCWC) Arden-Cordova customer service area are discussed in this section. A description of SCWC and the customer service area is also included.

D.1 SCWC's Arden-Cordova Service Area and Project Manager

SCWC is a principal subsidiary of the American States Water Company, an investor-owned public utility. Approximately one out of ten Californians is served by SCWC. SCWC is regulated by the California Public Utilities Commission (CPUC) and provides water service to 75 communities in ten counties throughout northern, coastal, and southern California. SCWC is divided into three regions in California, with the Baypoint, Clearlake, Cordova, Ojai, and Tanglewood Systems located in Region I.

The project manager responsible for the system leak repair will be Rob Hanford, P.E., Engineering and Planning Manager for SCWC Region 1. Mr. Hanford's resume is included in Appendix II.

D.2 External Cooperators

No external cooperators will be utilized for the leak repair program.

D.3 Partnerships Developed to Implement Project

No external partnerships will be developed for the leak repair program.

SECTION E

COSTS AND BENEFITS

This section describes both the quantifiable and non-quantifiable costs and benefits associated with the project. Included is a detailed budget summary and breakdown and justification. An assessment of costs and benefits that summarizes the costs and benefits of the proposed project is also provided.

E.1 Budget Summary and Breakdown

Table 1 in Appendix III presents a detailed estimated budget that includes salaries and wages, fringe benefits, supplies, equipment, services and consultants, travel and other direct costs. The table is a breakdown of the estimated costs between SCWC provided services and the services of the consultant that will be conducting the project.

The total cost of the project is $1,782,000. SCWC is requesting $891,000 from CALFED funding grants. The remaining fifty percent will be provided by SCWC through in-kind services and PUC approved capital outlay budgets.

E.2 Budget Justification

The budget estimate was prepared by SCWC and Brown and Caldwell, a professional water engineering firm with extensive experience in managing and conducting water conservation projects like this large landscape water conservation project. Brown and Caldwell is an approved consultant included in the California Urban Water Conservation Council's list of qualified consultants for the Year 2001.

E.3 Benefit Summary and Breakdown

This section lists the expected project outcomes and benefits of the proposed project.

a) Quantifiable Project Outcomes and Benefits. It is anticipated that the 1,188 service lines repaired under this project will result in the following:

- Water savings of 59.5 ac-ft/yr,
- Total water savings benefit of $160,000.

b) Non-quantifiable Project Outcomes and Benefits. There are many project benefits that can not be effectively quantified at this point in time. These are:

1) Improved Bay-Delta ecosystem through the reduction in water diversions by SCWC from the Bay-Delta. Increased system water use efficiency will have a direct benefit to more "environmental water" for the Delta.
2) Improved local watershed ecosystem by decreased diversions from local creeks and reservoirs thereby benefiting in-stream uses like salmon spawning.
3) Energy savings as a result of less water pumped into the system.
4) Economic savings to customers as a result of less water used.

E.4 Assessment of Costs and Benefits

This section includes an assessment that summarizes the costs and benefits of the proposed project. The major analysis assumptions are listed and explained. This section also shows the present value of the quantified costs and benefits for the applicant and CALFED and summarizes non-quantified costs and benefits to the applicant and CALFED.

All quantified benefits and costs are expressed in year 2000 dollars using a six percent discount rate. A list of all major assumptions for the analysis of the quantifiable cost and benefits is as follows:

1. The total number of connections in area is 35,853 as seen in Table B-1. This assumption is based on the SCWC Region 1 *Urban Water Management Plans*, as prepared by Brown and Caldwell November, 2000.
2. A maximum of 5% of service lines will be repaired. Budget constraints may require less than 5% in individual CSA's.
3. This project will reduce water usage by 5%. This assumption is based on the *Memorandum of Understanding Regarding Urban Water Conservation in California*, as amended September 21, 2000. Page 23.
4. Each leak repair will cost $1,500. This assumption is based on SCWC estimations.
5. The life span of leak repairs is 5 years.
6. The value of conserved water in SCWC depends on the area as seen in Table B-1.

A summary of the quantified costs and benefits to the Agencies, CALFED, and customers are compiled in Table E-1. A summary of the non-quantified costs and benefits to the Agencies and CALFED are compiled in Table E-2.

Table E-1. Summary of Qualified Costs and Benefits

	Costs	Benefits	
	dollars	Water, dollars	Water, ac-ft
SCWC	797,065	128,270	297
CALFED	797,065	None	297

Table E-2. Summary of the Non-quantified Costs and Benefits

Agency	Non-quantified costs	Non-quantified benefits
SCWC	• Possibly less revenue – due to declined customer use.	• More efficient water use.
CALFED	None	• More efficient water use. • More water for Bay-Delta.

APPENDIX I
GEOGRAPHIC BOUNDARIES OF PROJECT

APPENDIX II
RESUMES

Robert N. Hanford

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hanford@sierra.net

Education

B.S., Civil Engineering, University of Nevada-Reno, 1978.

MBA. University of Santa Clara, 1985

Continuing Education

Management and Labor Relations, U.C. Davis and University of Santa Clara

Registration

Professional Engineer, Nevada, # 6172

Civil Engineer, California, #33072

Professional Affiliations

American Society of Civil Engineers

American Public Works Association

Relevant Expertise

- Construction Management.
- Public Works Engineering.
- Engineering Management.

Southern California Water Company – July 1999-Present

- Manages all regional engineering and planning activities related to water supply and water distribution.
- Develops and monitors distribution models and master plans with respect to regional water systems.
- Implements regional goals and objectives related to the regional engineering function.
- Reviews and approves all conceptual designs, preliminary plans, final plans, specifications, and operational memos for all water supply and water distribution projects.
- Analyzes the water supply and distribution capabilities of water systems that are potential targets of acquisition.
- Administers and controls the regional engineering capital expense budgets.

Berryman & Henigar – July 1998-July 1999

- *Marketing.* Developed marketing plan to expand firm's existing client base. Responsibilities included identifying funding sources from local, state and federal agencies to create viable public works projects and processing grant applications through these agencies.

Santina & Thompson Consulting Engineers, Inc. – January 1998-July 1998

- *City of Citrus Heights.* Principal Civil Engineer for newly incorporated city of 85,000. Responsibilities include the development of one-year and five-year CIP's, initiated City's pavement management system (PMS), design and construction management of City's capital projects, technical review of private projects and City's redevelopment plan, grant application and management with local, state and federal funding agencies.

Harris and Associates – February 1997-December 1997

- *City of North Las Vegas Utility Bond.* Successfully managed permitting, right-of-way acquisition, design and provided bidability/constructability review of six utility projects with a total construction cost of $20 million. Projects included water transmission mains, 10-mg storage tank and pump station and a 13,000 lineal foot, 48-inch diameter sewer interceptor. Construction began on all projects at the end of a five-month design window.

Jeff Codega Planning/Design, Inc. – August 1993-February 1997

- Oversaw design and construction management for commercial, industrial and residential projects, including $350 million Silver Legacy Casino, 1 million square foot IGT Manufacturing Facility, El Dorado Casino Expansion and over 12 residential subdivisions.

Giberson & Associates Consulting Engineers, Inc.– March 1993-August 1993

JWA Consulting Engineers, Inc. – November 1988-February 1991

Tahoe City Public Utility District – September 1986-November 1988

APPENDIX III
COST ESTIMATE

Appendix III

Table 1. SCWC Service Leak Repair Project Cost Estimate

	SCWC	CALFED TOTAL	TOTAL PROJECT COST
a. Labor	$356,400	$356,400	$712,800
c. Supplies	$356,400	$356,400	$712,800
d. Equipment	$89,100	$89,100	$178,200
e. Prof. Services	$0	$0	$0
f. Travel	$0	$0	$0
g. Other	$0	$0	$0
Contingency	$89,100	$89,100	$178,200
Project Total	$891,000	$891,000	$1,782,000

Appendix III

SCWC-Baypoint

Economic Analysis Worksheets

BMP 3. ***System Water Audits, Leak Detection, and Repair***

				Benefits ($)					Costs ($)					
Calendar Year	Number of Lines Repaired	Incremental Water Savings (AF/yr)	Annual Water Savings (AF/yr)	Avoided Capital Costs	Avoided Variable Costs ($/yr)	Avoided Purchase Costs	Total Undiscounted Benefits ($/yr)	Total Discounted Benefits ($/yr)	Operating Costs	Financial Incentives	Capital Costs ($/yr)	Total Undiscounted Costs ($/yr)	Total Discounted Costs ($/yr)	Net Present Value ($)
2001	146	7	7	0	5,840	0	5,840	5,509	0	0	219,000	219,000	206,604	-201,094
2002	53	3	10	0	7,960	0	7,960	7,084	0	0	79,500	79,500	70,755	-63,670
2003	13	1	11	0	8,480	0	8,480	7,120	0	0	19,500	19,500	16,373	-9,253
2004		0	11	0	8,480	0	8,480	6,717	0	0	0	0	0	6,717
2005		0	11	0	8,480	0	8,480	6,337	0	0	0	0	0	6,337
2006		0	3	0	2,640	0	2,640	1,861	0	0	0	0	0	1,861
2007		0	1	0	520	0	520	346	0	0	0	0	0	346
2008		0	0	0	0	0	0	0	0	0	0	0	0	0
2009		0	0	0	0	0	0	0	0	0	0	0	0	0
2010		0	0	0	0	0	0	0	0	0	0	0	0	0
2011		0	0	0	0	0	0	0	0	0	0	0	0	0
2012		0	0	0	0	0	0	0	0	0	0	0	0	0
2013		0	0	0	0	0	0	0	0	0	0	0	0	0
2014		0	0	0	0	0	0	0	0	0	0	0	0	0
2015		0	0	0	0	0	0	0	0	0	0	0	0	0
2016		0	0	0	0	0	0	0	0	0	0	0	0	0
2017		0	0	0	0	0	0	0	0	0	0	0	0	0
2018		0	0	0	0	0	0	0	0	0	0	0	0	0
2019		0	0	0	0	0	0	0	0	0	0	0	0	0
2020		0	0	0	0	0	0	0	0	0	0	0	0	0
Totals:	212	10.6	53	0	42,400	0	42,400	34,974	0	0	318,000	318,000	293,731	-258,757
							Value of conserved water ($/AF) =	800						
							Discount rate (real) =	6.0%						
							Annual water savings (AF/yr/line) =	0.05						
							Conservation measure unit cost ($/line) =	1500						
							Number of Service Lines to be repaired =	212						

Appendix III

SCWC-Clearlake

Economic Analysis Worksheets

BMP 3. ***System Water Audits, Leak Detection, and Repair***

				Benefits ($)					Costs ($)					
Calendar Year	Number of Lines Repaired	Incremental Water Savings (AF/yr)	Annual Water Savings (AF/yr)	Avoided Capital Costs	Avoided Variable Costs ($/yr)	Avoided Purchase Costs	Total Undiscounted Benefits ($/yr)	Total Discounted Benefits ($/yr)	Operating Costs	Financial Incentives	Capital Costs ($/yr)	Total Undiscounted Costs ($/yr)	Total Discounted Costs ($/yr)	Net Present Value ($)
2001	6	0	0	0	90	0	90	85	0	0	9,000	9,000	8,491	-8,406
2002	6	0	1	0	180	0	180	160	0	0	9,000	9,000	8,010	-7,850
2003	6	0	1	0	270	0	270	227	0	0	9,000	9,000	7,557	-7,330
2004		0	1	0	270	0	270	214	0	0	0	0	0	214
2005		0	1	0	270	0	270	202	0	0	0	0	0	202
2006		0	1	0	180	0	180	127	0	0	0	0	0	127
2007		0	0	0	90	0	90	60	0	0	0	0	0	60
2008		0	0	0	0	0	0	0	0	0	0	0	0	0
2009		0	0	0	0	0	0	0	0	0	0	0	0	0
2010		0	0	0	0	0	0	0	0	0	0	0	0	0
2011		0	0	0	0	0	0	0	0	0	0	0	0	0
2012		0	0	0	0	0	0	0	0	0	0	0	0	0
2013		0	0	0	0	0	0	0	0	0	0	0	0	0
2014		0	0	0	0	0	0	0	0	0	0	0	0	0
2015		0	0	0	0	0	0	0	0	0	0	0	0	0
2016		0	0	0	0	0	0	0	0	0	0	0	0	0
2017		0	0	0	0	0	0	0	0	0	0	0	0	0
2018		0	0	0	0	0	0	0	0	0	0	0	0	0
2019		0	0	0	0	0	0	0	0	0	0	0	0	0
2020		0	0	0	0	0	0	0	0	0	0	0	0	0
Totals:	18	0.9	5	0	1,350	0	1,350	1,074	0	0	27,000	27,000	24,057	-22,983
							Value of conserved water ($/AF) =	300						
							Discount rate (real) =	6.0%						
							Annual water savings (AF/yr/line) =	0.05						
							Conservation measure unit cost ($/line) =	1500						
							Number of Service Lines to be repaired =	18						

Appendix III

SCWC-Cordova

Economic Analysis Worksheets

BMP 3. ***System Water Audits, Leak Detection, and Repair***

				Benefits ($)					Costs ($)					
Calendar Year	Number of Lines Repaired	Incremental Water Savings (AF/yr)	Annual Water Savings (AF/yr)	Avoided Capital Costs	Avoided Variable Costs ($/yr)	Avoided Purchase Costs	Total Undiscounted Benefits ($/yr)	Total Discounted Benefits ($/yr)	Operating Costs	Financial Incentives	Capital Costs ($/yr)	Total Undiscounted Costs ($/yr)	Total Discounted Costs ($/yr)	Net Present Value ($)
2001	190	10	10	0	4,750	0	4,750	4,481	0	0	285,000	285,000	268,868	-264,387
2002	190	10	19	0	9,500	0	9,500	8,455	0	0	285,000	285,000	253,649	-245,194
2003	220	11	30	0	15,000	0	15,000	12,594	0	0	330,000	330,000	277,074	-264,480
2004		0	30	0	15,000	0	15,000	11,881	0	0	0	0	0	11,881
2005		0	30	0	15,000	0	15,000	11,209	0	0	0	0	0	11,209
2006		0	21	0	10,250	0	10,250	7,226	0	0	0	0	0	7,226
2007		0	11	0	5,500	0	5,500	3,658	0	0	0	0	0	3,658
2008		0	0	0	0	0	0	0	0	0	0	0	0	0
2009		0	0	0	0	0	0	0	0	0	0	0	0	0
2010		0	0	0	0	0	0	0	0	0	0	0	0	0
2011		0	0	0	0	0	0	0	0	0	0	0	0	0
2012		0	0	0	0	0	0	0	0	0	0	0	0	0
2013		0	0	0	0	0	0	0	0	0	0	0	0	0
2014		0	0	0	0	0	0	0	0	0	0	0	0	0
2015		0	0	0	0	0	0	0	0	0	0	0	0	0
2016		0	0	0	0	0	0	0	0	0	0	0	0	0
2017		0	0	0	0	0	0	0	0	0	0	0	0	0
2018		0	0	0	0	0	0	0	0	0	0	0	0	0
2019		0	0	0	0	0	0	0	0	0	0	0	0	0
2020		0	0	0	0	0	0	0	0	0	0	0	0	0
Totals:	600	30	150	0	75,000	0	75,000	59,504	0	0	900,000	900,000	799,591	-740,087
							Value of conserved water ($/AF) =	500						
							Discount rate (real) =	6.0%						
							Annual water savings (AF/yr/line) =	0.05						
							Conservation measure unit cost ($/line) =	1500						
							Number of Service Lines to be repaired =	600						

Appendix III
SCWC-Ojai
Economic Analysis Worksheets
BMP 3. ***System Water Audits, Leak Detection, and Repair***

				Benefits ($)					Costs ($)					
Calendar Year	Number of Lines Repaired	Incremental Water Savings (AF/yr)	Annual Water Savings (AF/yr)	Avoided Capital Costs	Avoided Variable Costs ($/yr)	Avoided Purchase Costs	Total Undiscounted Benefits ($/yr)	Total Discounted Benefits ($/yr)	Operating Costs	Financial Incentives	Capital Costs ($/yr)	Total Undiscounted Costs ($/yr)	Total Discounted Costs ($/yr)	Net Present Value ($)
2001	40	2	2	0	800	0	800	755	0	0	60,000	60,000	56,604	-55,849
2002	40	2	4	0	1,600	0	1,600	1,424	0	0	60,000	60,000	53,400	-51,976
2003	60	3	7	0	2,800	0	2,800	2,351	0	0	90,000	90,000	75,566	-73,215
2004		0	7	0	2,800	0	2,800	2,218	0	0	0	0	0	2,218
2005		0	7	0	2,800	0	2,800	2,092	0	0	0	0	0	2,092
2006		0	5	0	2,000	0	2,000	1,410	0	0	0	0	0	1,410
2007		0	3	0	1,200	0	1,200	798	0	0	0	0	0	798
2008		0	0	0	0	0	0	0	0	0	0	0	0	0
2009		0	0	0	0	0	0	0	0	0	0	0	0	0
2010		0	0	0	0	0	0	0	0	0	0	0	0	0
2011		0	0	0	0	0	0	0	0	0	0	0	0	0
2012		0	0	0	0	0	0	0	0	0	0	0	0	0
2013		0	0	0	0	0	0	0	0	0	0	0	0	0
2014		0	0	0	0	0	0	0	0	0	0	0	0	0
2015		0	0	0	0	0	0	0	0	0	0	0	0	0
2016		0	0	0	0	0	0	0	0	0	0	0	0	0
2017		0	0	0	0	0	0	0	0	0	0	0	0	0
2018		0	0	0	0	0	0	0	0	0	0	0	0	0
2019		0	0	0	0	0	0	0	0	0	0	0	0	0
2020		0	0	0	0	0	0	0	0	0	0	0	0	0
Totals:	140	7	35	0	14,000	0	14,000	11,048	0	0	210,000	210,000	185,569	-174,521
					Value of conserved water ($/AF) =			400						
						Discount rate (real) =		6.0%						
					Annual water savings (AF/yr/line) =			0.05						
					Conservation measure unit cost ($/line) =			1500						
					Number of Service Lines to be repaired =			140						

Appendix III
SCWC-Simi Valley
Economic Analysis Worksheets
BMP 3. ***System Water Audits, Leak Detection, and Repair***

				Benefits ($)					Costs ($)			
Calendar Year	Number of Lines Repaired	Incremental Water Savings (AF/yr)	Annual Water Savings (AF/yr)	Avoided Capital Costs	Avoided Variable Costs ($/yr)	Avoided Purchase Costs	Total Undiscounted Benefits ($/yr)	Total Discounted Benefits ($/yr)	Operating Costs	Financial Incentives	Capital Costs ($/yr)	Total Undiscounted Costs ($/yr)
2001	65	3	3	0	1,625	0	1,625	1,533	0	0	97,500	97,500
2002	65	3	7	0	3,250	0	3,250	2,892	0	0	97,500	97,500
2003	65	3	10	0	4,875	0	4,875	4,093	0	0	97,500	97,500
2004		0	10	0	4,875	0	4,875	3,861	0	0	0	0
2005		0	10	0	4,875	0	4,875	3,643	0	0	0	0
2006		0	7	0	3,250	0	3,250	2,291	0	0	0	0
2007		0	3	0	1,625	0	1,625	1,081	0	0	0	0
2008		0	0	0	0	0	0	0	0	0	0	0
2009		0	0	0	0	0	0	0	0	0	0	0
2010		0	0	0	0	0	0	0	0	0	0	0
2011		0	0	0	0	0	0	0	0	0	0	0
2012		0	0	0	0	0	0	0	0	0	0	0
2013		0	0	0	0	0	0	0	0	0	0	0
2014		0	0	0	0	0	0	0	0	0	0	0
2015		0	0	0	0	0	0	0	0	0	0	0
2016		0	0	0	0	0	0	0	0	0	0	0
2017		0	0	0	0	0	0	0	0	0	0	0
2018		0	0	0	0	0	0	0	0	0	0	0
2019		0	0	0	0	0	0	0	0	0	0	0
2020		0	0	0	0	0	0	0	0	0	0	0
Totals:	195	9.75	49	0	24,375	0	24,375	19,395	0	0	292,500	292,500
					Value of conserved water ($/AF) =			500				
					Discount rate (real) =			6.0%				
					Annual water savings (AF/yr/line) =			0.05				
					Conservation measure unit cost ($/line) =			1500				
					Number of Service Lines to be repaired =			195				

Appendix III
SCWC-Simi Valley
Economic Analysis Worksheets
BMP 3. ***System Water Audits, Leak Detection, and Repair***

Total Discounted Costs ($/yr)	**Net Present Value ($)**
91,981	-90,448
86,775	-83,882
81,863	-77,770
0	3,861
0	3,643
0	2,291
0	1,081
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
260,619	-241,224

Appendix III
SCWC-Tanglewood
Economic Analysis Worksheets
BMP 3. System Water Audits, Leak Detection, and Repair

				Benefits ($)					Costs ($)					
Calendar Year	Number of Lines Repaired	Incremental Water Savings (AF/yr)	Annual Water Savings (AF/yr)	Avoided Capital Costs	Avoided Variable Costs ($/yr)	Avoided Purchase Costs	Total Undiscounted Benefits ($/yr)	Total Discounted Benefits ($/yr)	Operating Costs	Financial Incentives	Capital Costs ($/yr)	Total Undiscounted Costs ($/yr)	Total Discounted Costs ($/yr)	Net Present Value ($)
2001	7	0	0	0	173	0	173	163	0	0	10,350	10,350	9,764	-9,601
2002	7	0	1	0	345	0	345	307	0	0	10,350	10,350	9,211	-8,904
2003	9	0	1	0	575	0	575	483	0	0	13,800	13,800	11,587	-11,104
2004		0	1	0	575	0	575	455	0	0	0	0	0	455
2005		0	1	0	575	0	575	430	0	0	0	0	0	430
2006		0	1	0	403	0	403	284	0	0	0	0	0	284
2007		0	0	0	230	0	230	153	0	0	0	0	0	153
2008		0	0	0	0	0	0	0	0	0	0	0	0	0
2009		0	0	0	0	0	0	0	0	0	0	0	0	0
2010		0	0	0	0	0	0	0	0	0	0	0	0	0
2011		0	0	0	0	0	0	0	0	0	0	0	0	0
2012		0	0	0	0	0	0	0	0	0	0	0	0	0
2013		0	0	0	0	0	0	0	0	0	0	0	0	0
2014		0	0	0	0	0	0	0	0	0	0	0	0	0
2015		0	0	0	0	0	0	0	0	0	0	0	0	0
2016		0	0	0	0	0	0	0	0	0	0	0	0	0
2017		0	0	0	0	0	0	0	0	0	0	0	0	0
2018		0	0	0	0	0	0	0	0	0	0	0	0	0
2019		0	0	0	0	0	0	0	0	0	0	0	0	0
2020		0	0	0	0	0	0	0	0	0	0	0	0	0
Totals:	23	1.15	6	0	2,875	0	2,875	2,274	0	0	34,500	34,500	30,562	-28,288
					Value of conserved water ($/AF) =			500						
						Discount rate (real) =		6.0%						
					Annual water savings (AF/yr/line) =			0.05						
					Conservation measure unit cost ($/line) =			1500						
					Number of Service Lines to be repaired =			23						